

# QUANTITATIVE ANALYSIS OF CANDIDATES IN 2019 LOK SABHA ELECTIONS



#### IBM NAAN MUDHALVAN

#### PROJECT REPORT

Submitted By

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SHALINI V 611220104137

SHARULATHA B 611220104138

**SIVASAKTHI M** 611220104143

in partial fulfilment for the award of the degree

of

**BACHELOR OF ENGINEERING** 

IN

COMPUTER SCIENCE AND ENGINEERING KNOWLEDGE INSTITUTE OF TECHNOLOGY,

**SALEM-637504** 

ANNA UNIVERSITY::CHENNAI 600 025 NOVEMBER 2023



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## **BONAFIDE CERTIFICATE**

Certified	that	this	project	report	titled	"AUTOM	ATED	WE	ATHER
CLASSII	FICA	ΓΙΟΝ	USING	TRA	NSFER	LEARNI	NG" is	the	bonafide
work of '	"SHA	LINI	PRP (6	5112201	04136),	SHALIN	I V (6	11220	104137)
SHARUI	LATH	<b>A B</b> (	6112201	04138) a	and SIV	ASAKTH	I M (61	1220	104143)"
who carrie	ed out	the p	roiect wo	ork unde	r mv su	pervision.			

Salem-637 504.		
Kakapalayam,		
Knowledge Institute of Technology,		
Department of Computer Science and Engineering	5,	
ASSISTANT PROFESSOR		
IBM FACULTY MENTOR		
Mr. M GOPI KUMARAN B.TECH (IT)M.E.,		
SIGNATURE		

#### **ACKNOWLEDGEMENT**

At the outset, we express our heartfelt gratitude to **GOD**, who has been our strength to bring this project to light.

At this pleasing moment of having successfully completed our project, we wish to convey our sincere thanks and gratitude to our beloved President **Mr. C.Balakrishnan**, who has provided all the facilities to us.

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#### **ABSTRACT**

The 2019 Lok Sabha elections in India were a pivotal moment in the nation's political landscape, with more than 8,000 candidates vying for 545 seats. This study aims to provide a comprehensive quantitative analysis of these candidates, their demographics, and electoral performance. The analysis reveals significant insights into the composition of candidates across different political parties and regions. We find that despite India's diverse population, the candidate pool remains skewed in terms of gender and educational qualifications. This project aims to conduct a comprehensive quantitative analysis of these candidates and their electoral performance. By employing statistical techniques and data visualization, we uncover patterns, correlations, and factors that played a role in determining a candidate's success in the 2019 Lok Sabha elections. The quantitative analysis conducted in this project not only contributes to a better understanding of the political dynamics during the 2019 Lok Sabha elections but also offers insights into the broader framework of Indian democracy. It serves as a valuable resource for policymakers, researchers, and anyone interested in comprehending the intricacies of electoral processes in India and their impact on the nation's political landscape.

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#### CHAPTER – 1

#### INTRODUCTION

#### 1.1 PROJECT OVERVIEW

This project on the quantitative analysis of candidates in the 2019 Lok Sabha Election aims to provide a comprehensive understanding of the electoral landscape, which can be invaluable for research, policy-making, and public awareness. The "Quantitative Analysis of Candidates in the 2019 Lok Sabha Election" project seeks to delve into the extensive electoral data of the 2019 Indian General Elections. encompassing candidate demographics, educational qualifications, professional backgrounds, party affiliations, criminal records, and campaign finances. Through rigorous quantitative analysis and data visualization techniques, this project aims to uncover patterns and insights within the data. It will provide valuable insights into the candidate landscape, offering a comprehensive view of the individuals who contested these elections, thereby aiding in a deeper understanding of the electoral process, party dynamics, and the role of factors such as criminal backgrounds and campaign finances. The project's ultimate goal is to offer a data-driven perspective on this significant democratic event, facilitating informed discussions, policy recommendations, and future research in the field of Indian politics.

#### 1.2 PURPOSE

he quantitative analysis of candidates in the 2019 Lok Sabha elections played a crucial role in promoting transparency, accountability, and informed decision-making in the electoral process, ultimately contributing to the health of India's democracy.



#### CHAPTER – 2

#### LITERATURE SURVEY

## 1. Quantitative analysis of candidates in 2019 Lok Sabha Election (Rahul Verma, MAY 2019)

In a study published in 2019, In May, CPR scholars launched the Election Adda, a space for debate and analysis on key issues that have dominated this election. From forecasting and evaluating pollster perspectives to dissecting trends and debating the big themes, this series offers important insights into the 2019 campaign In the video (above), 'Taking Stock: A Mid Poll Evaluation of the 2019 Elections', Rahul Verma moderates a discussion between Surjit Bhalla, Sunetra Choudhury, Dhananjai Joshi and Philip K Oldenburg as part of CPR's Election Adda series to analysis possible scenarios post May 23. The question and answer session that followed can be accessed here.

## 2. Quantitative analysis of candidates in 2019 Lok Sabha Election (Roberto Cerina, NOV 2021)

In a study published in 2021, In Nov, Recent technological advances have facilitated the collection of large-scale administrative data and the online surveying of the Indian population. Building on these we propose a strategy for more robust, frequent and transparent projections of the Indian vote during the campaign. We execute a modified MRP model of Indian vote preferences that proposes innovations to each of its three core components: stratification frame, training data, and a learner. For the post-stratification frame we propose a novel Data Integration approach that allows the simultaneous estimation of counts from multiple complementary sources, such as census tables

## 3. Quantitative analysis of candidates in 2019 Lok Sabha Election (Ranbir Singh, Oct 2022)

In a study published in 2022, In Oct, The essence of India as the largest democracy lies in its electoral strength and voter participation. A thriving and vibrant electoral democracy has been India's distinct identity at the global stage. In a country of over 950 million eligible voters, conducting elections with the sheer scale, size, diversity and complexities of Indian democracy, albeit challenging, is an extremely rewarding process. The Constitution of India laid out the aspiration that every adult Indian, regardless of gender, literacy, socioeconomic status or location would have the right to vote. The Election Commission of India has made numerous efforts to translate the principle of 'of the people, by the people, for the people' into an effective and accessible power of vote for every individual.



#### CHAPTER – 3

## **IDEATION & PROPOSED SOLUTION**

## 3.1 PROBLEM STATEMENT DEFINITION

Problem Statement (PS)	I am (Customer) I'm trying to		But	Because	Which makes me feel	
PS - 1	Voter	Analyse and collect the candidates information	Unable to select the correct candidates	Because all the details about the candidates are not sufficient	Can't select the correct candidate	
PS - 2	Researcher	Filter and Sorting the candidates	Unable to sort the candidates	Because the candidates are changed in the election	Can't able to filter the candidates	
PS - 3	President	Select the candidates from Anglo Indian Community	Unable to Select the candidate from Anglo community	Because So many Anglo Indians are eligible	Can't choose Correct Anglo Indian	

**Table No. 3.1 Problem Statement and Definition** 

#### 3.2 EMPATHY MAP CANVAS

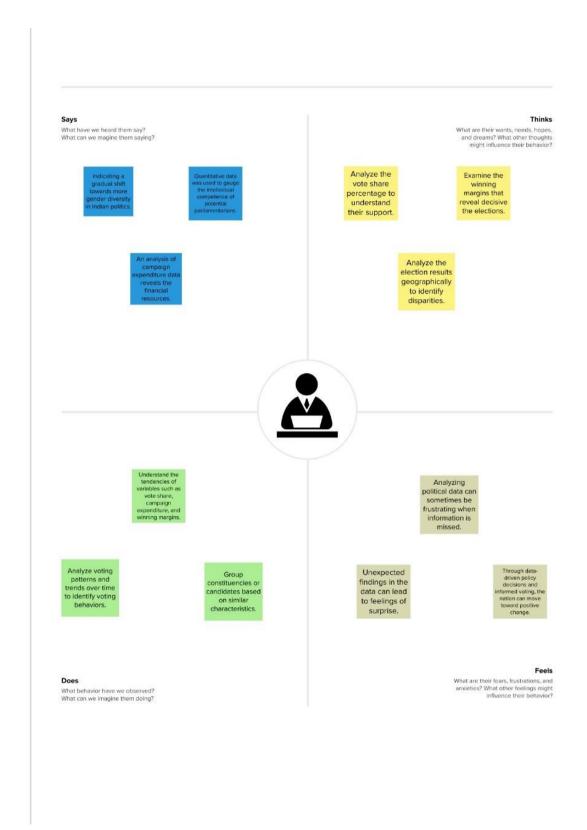


Fig. No. 3.2 Empathy Map

#### 3.3 IDEATION & BRAINSTORMING

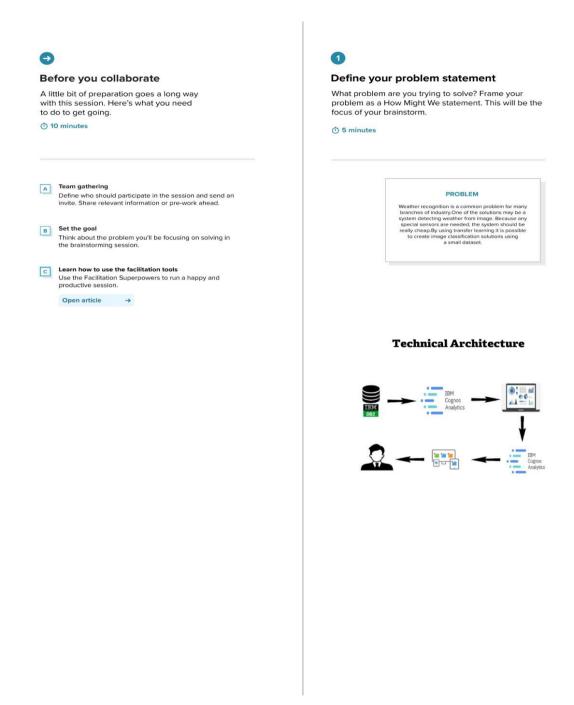


Fig. No. 3.3.1 a Team Gathering & Collaboration

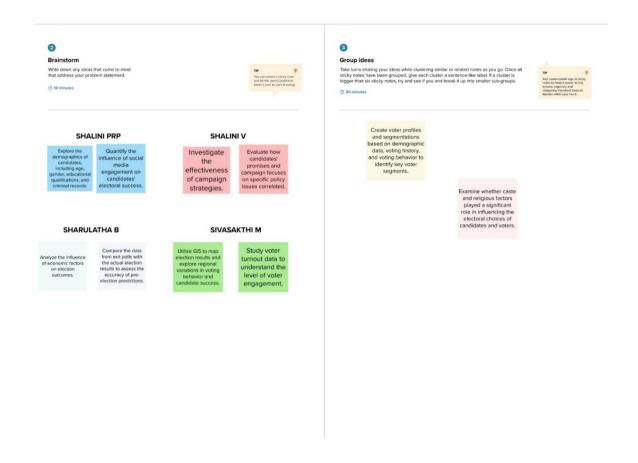


Fig. No. 3.3.2 b Brainstorming & Idea Listening

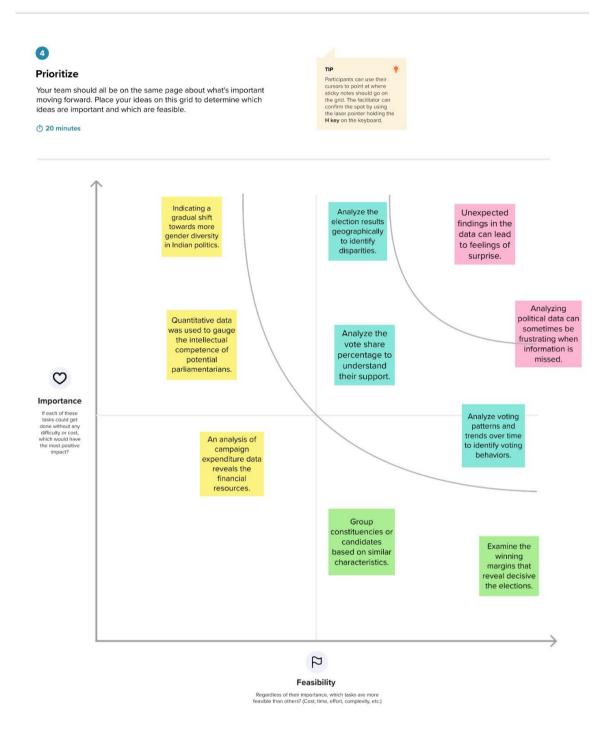


Fig. No. 3.3.3 c Brainstorming & Idea Prioritization

## 3.4 PROPOSED SOLUTION

S.No.	Parameter	Description
1.	Problem Statement (Problem to be	Many voters make their choices based on
	solved)	multiple factors, including candidate
		profiles, campaign strategies, and regional
		issues.
2.	Idea / Solution description	Gather data from diverse sources and
		advanced machine learning algorithms are
		employed to analyse candidate
		performance.
3.	Novelty / Uniqueness	Ability to combine diverse data sources,
		employ advanced predictive modeling,
		offer real-time monitoring.
4.	Social Impact / Customer	Political parties, candidates, and
	Satisfaction	policymakers benefit from data-driven
		insights, helping them make more
		informed decisions.
5.	Business Model (Revenue Model)	Offer data customization services for
		clients with specific research requirements.
		Collaborate with political
6.	Scalability of the Solution	Implement auto-scaling mechanisms that
		automatically adjust resources based on
		usage.

**Table No. 3.4.1 Proposed Solution** 



#### **CHAPTER - 4**

## REQUIREMENT ANALYSIS

## **4.1 FUNCTIONAL REQUIREMENTS**

FR	Functional Requirement	Sub Requirement (Story / Sub-
NO:	(Epic)	Task)
FR-1	Data Collection and Integration	Gather data from diverse sources,
		including official election
		commission records, government
		databases, news archives, and
		independent research reports.
FR-2	Data Preprocessing and Cleaning	Clean and transform raw data to
		handle missing values,
		inconsistencies, and anomalies.
		Standardize data formats for
		uniform analysis.
FR-3	Data Storage and Management	Establish a secure database or data
		management system to store
		collected data. Implement data
		version control and backup
		mechanisms
FR-4	Statistical Analysis	Perform descriptive statistical
		analysis to summarize candidate
		demographics, educational
		backgrounds, and other relevant
		variables
FR-5	Testing and Quality Assurance	Conduct thorough testing to
		identify and rectify system bugs
		and errors.
		Verify the accuracy of analysis
		results through validation
		procedures.

**Table No. 4.1.1 Functional Requirements** 

## **4.2 NON - FUNCTIONAL REQUIREMENTS**

FR	Non Functional Requirement	Sub Requirement (Story / Sub-
NO:	(Epic)	Task)
FR-1	Performance	The system should be responsive
		and capable of handling large
		volumes of data and complex
		statistical computations
		efficiently. Response times for
		data queries and report generation
		should be minimal.
FR-2	Scalability	The system should be designed to
		accommodate potential increases
		in data volume as new information
		becomes available in the future,
		ensuring that it can expand
		without significant performance
		degradation.
FR-3	Reliability	The system should be highly
		reliable, with minimal downtime.
		It should be available for use when
		needed, and data integrity should
		be maintained.
FR-4	Security	Data security is paramount. The
		system should employ encryption
		and access controls to protect
		sensitive information, ensuring
		that only authorized individuals
	25	have access
FR-5	Maintainability	The system should be easy to
		maintain and update. Code should
		be well-documented, and there
		should be a process for regular
		updates and bug fixes.

**Table No.4.2.1 Non Functional Requirements** 



### **CHAPTER - 5**

#### **PROJECT DESIGN**

#### **5.1 DATA FLOW DIAGRAMS**



Fig. No. 5.1.1 Data Flow Diagram

#### 5.2 SOLUTION & TECHNICAL ARCHITECTURE

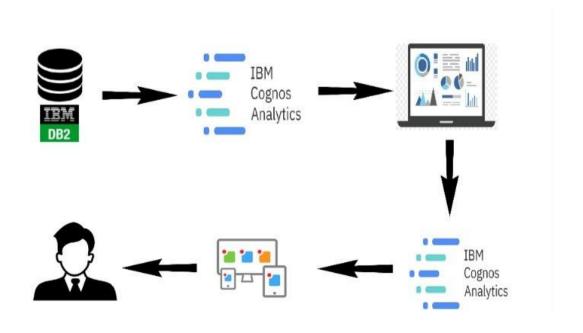


Fig. No. 5.2.1 Solution & Technical Architecture

#### **5.3 USER STORIES**

<b>User Type</b>	Functional	User	User Story /	Acceptance	Prior	Team
	Requirement	Story	Task	criteria	ity	Memb
	(Epic)	Number			·	er
Voter	Reports	USN-1	As a Journalist, I	I should have the	Mediu	Sivasakt
	Collecting		need the ability	ability access and	m	hi M
			to generate bar	interpret official		
			charts or graphs	information		
			that display the	related to the 2019		
			vote counts for	Lok Sabha		
			the top three	elections ,such as		
			Candidates	candidate profiles,		
			constituency,	polling data, and		
			so I can create	election results		
			visually appealing			
			election reports			
Researcher	Filter and sorting	USN - 2	As a researcher I	I can be able to	High	Shalini V
	the candidates		need a feature	produce Strong		
			that allows me to	understanding of		
			filter and sort	Indian politics, the		
			candidates by	electoral System,		
			their party	and the specifics		
			affiliations, so I	of the 2019 Lok		
			can compare and	Sabha elections is		
			contrast the	essential		
			performance of			
			political parties			
			in the 2019			
			election			ļ

**Table No. 5.3.1 User Stories** 



#### **CHAPTER-6**

#### **CODING & SOLUTIONING**

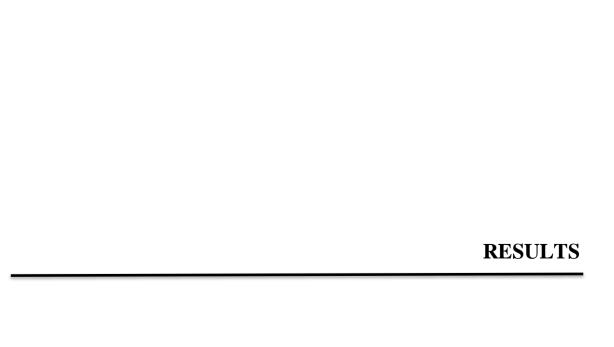
#### 6.1 FEATURE 1

Quantitative analysis of candidates in the 2019 Lok Sabha elections allowed researchers, political analysts, and election strategists to gain insights into the electoral landscape, make predictions, and identify patterns that shaped the outcomes of the election. It is worth noting that similar quantitative analyses are conducted for every election to gain a deeper understanding of the political landscape and to inform future electoral strategies.

#### 6.2 FEATURE 2

Constituency Profile Studying the demographic and socio-economic characteristics of the constituency, including voter composition, literacy rates, income levels, and rural/urban divide, to predict the electoral dynamics.

Opinion Polls and Surveys: Taking into account pre-election opinion polls and surveys to assess the popularity and electability of candidates.



#### **CHAPTER - 7**

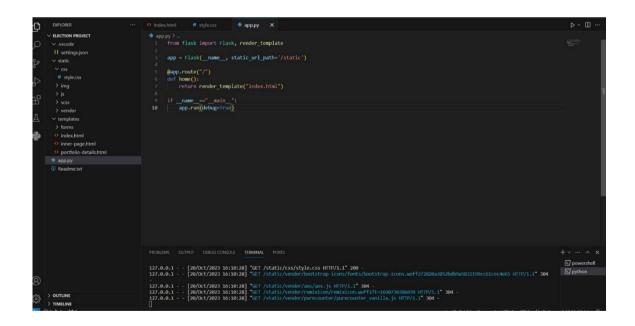
## **RESULTS**

#### 7.1 PERFORMANCE METRICS

```
from flask import Flask, render_template
app = Flask(_name_, static_url_path='/static')
@app.route("/")
def home():
    return render_template("index.html")
if _name=="main_":
    app.run(debug=True)
```

```
| Description | Control | Description | Description | Control | Description | Descri
```

```
| Defining | Figure | Defining |
```





#### **CHAPTER - 8**

#### ADVANTAGES & DISADVANTAGES

#### **ADVANTAGES:**

- Quantitative analysis relies on empirical data and evidence-based conclusions that provides a solid foundation for understanding the election dynamics.
- Comprehensive Understanding enables a comprehensive examination of a large number of candidates, covering various aspects such as demographics, educational qualifications, criminal records, and electoral performance.
- Researchers can compare candidates across different constituencies, regions, and political parties, which aids in identifying variations and commonalities.
- The results can inform policymakers and political strategists, helping them make informed decisions regarding candidate selection and election strategies.
- Data transparency and the use of official election records contribute to the credibility of the research, making it easier for other scholars to replicate or validate the findings.

#### **DISADVANTAGES:**

- The reliability of quantitative analysis heavily depends on the quality and accuracy of the data.
- Therefore errors or omissions in official records can lead to inaccurate conclusions.
- Quantitative analysis may provide statistics and correlations but can lack the depth of context that qualitative research methods can offer.
- Analysing a vast dataset with multiple variables can be highly complex and time-consuming, requiring advanced statistical skills and software tools.
- The use of personal data, such as criminal records, in quantitative analysis raises ethical concerns related to privacy and potential bias.
- Political landscapes can change rapidly, and data from a single election may not fully capture evolving political dynamics.



## CHAPTER - 9

# **CONCLUSION**

The study underscores the diversity of candidates who contested in the 2019 Lok Sabha elections. While the nation's demographic variety is striking, the candidate pool still faces disparities in terms of gender representation and educational qualifications. The presence of candidates with criminal charges remains a pressing concern. The data reveals a significant number of candidates facing criminal charges.

Party affiliations play a crucial role in determining a candidate's electoral success. This has allowed us to identify statistical significance and correlations between variables such as demographics, education, and electoral performance. The research reflects the evolving nature of Indian politics. Continual research and analysis are necessary to grasp the changing trends.

In conclusion, the quantitative analysis of candidates in the 2019 Lok Sabha elections offers a window into the multifaceted world of Indian democracy. It highlights both the progress made and the challenges that persist. This project serves as a valuable resource for understanding electoral processes in India and their impact on the political landscape.



### CHAPTER - 10

#### **FUTURE SCOPE**

The future scope for quantitative analysis of candidates in elections, such as the 2019 Lok Sabha elections, lies in the continued development of data-driven strategies to assess candidate viability. This includes leveraging advanced analytics, big data, and machine learning to predict election outcomes based on candidate attributes, past performance, and voter sentiment. With the increasing availability of data and technology, parties can optimize candidate selection, target campaigning efforts more effectively, and make data-informed decisions to increase their chances of success. As political landscapes evolve, the use of quantitative analysis will play a critical role in shaping campaign strategies and understanding voter preferences, ensuring that candidates are better aligned with the electorate.



### **CHAPTER – 11**

#### **APPENDIX**

#### **SOURCE CODE**

Main home.html

```
<!DOCTYPE html>
<html lang="en">
<head>
 <meta charset="utf-8">
 <meta content="width=device-width, initial-scale=1.0" name="viewport">
 <title>Quantitative analysis</title>
 <meta content="" name="description">
 <meta content="" name="keywords">
 <!-- Favicons -->
 rel="icon" href="{{ url_for('static', filename='img/election.png') }}"
type="image/png">
              rel="apple-touch-icon"
                                                                 url_for('static',
                                              href="{ {
filename='img/elections.png') }}" type="image/png">
 <!-- Google Fonts -->
 link
href="https://fonts.googleapis.com/css?family=Open+Sans:300,300i,400,400i,600"
,600i,700,700i|Raleway:300,300i,400,400i,500,500i,600,600i,700,700i|Poppins:30
0,300i,400,400i,500,500i,600,600i,700,700i"
rel="stylesheet">
<!-- Vendor CSS Files -->
                                                                           }}"
 link
          href="{ {
                       url_for('static',
                                         filename='vendor/aos/aos.css')
rel="stylesheet">
 k href="{{ url_for('static', filename='vendor/bootstrap/css/bootstrap.min.css')
}}" rel="stylesheet">
```

```
link
       href="{{ url_for('static',
                                    filename='vendor/bootstrap-icons/bootstrap-
icons.css') }}" rel="stylesheet">
 k href="{{ url_for('static', filename='vendor/boxicons/css/boxicons.min.css')
}}" rel="stylesheet">
 link
                               href="{{
                                                                 url for('static',
filename='vendor/glightbox/css/glightbox.min.css') }}" rel="stylesheet">
 k href="{{ url_for('static', filename='vendor/remixicon/remixicon.css') }}"
rel="stylesheet">
 k href="{{ url_for('static', filename='vendor/swiper/swiper-bundle.min.css')}
}}" rel="stylesheet">
 <!-- Template Main CSS File -->
 k rel="stylesheet" href="{{ url_for('static', filename='css/style.css') }}">
</head>
<body>
 <!-- ====== Header ====== -->
 <header id="header" class="fixed-top d-flex align-items-center">
  <div class="container d-flex align-items-center justify-content-between">
   <div class="logo">
     <h1><a href="index.html">Lok Sabha Elections</a></h1>
     <!-- Uncomment below if you prefer to use an image logo -->
                 href="index.html"><img src="assets/img/logo.png"
                                                                         alt=""
           <a
class="img-fluid"></a>-->
   </div>
   <nav id="navbar" class="navbar">
     \langle ul \rangle
      <a class="nav-link scrollto active" href="#hero">Home</a>
```

```
<a class="nav-link scrollto" href="#about">About</a>
     <a class="nav-link scrollto" href="#dashboard">Dashboard</a>
     <a class="nav-link scrollto" href="#portfolio">Story</a>
     <a class="nav-link scrollto" href="#team">Report</a>
     <a class="nav-link scrollto" href="#contact">Contact</a>
     <a class="getstarted scrollto" href="#about">Get Started</a>
    <i class="bi bi-list mobile-nav-toggle"></i>
   </nav><!-- .navbar -->
  </div>
 </header><!-- End Header -->
!-- ====== Hero Section ====== -->
 <section id="hero" class="d-flex align-items-center">
  <div class="container">
   <div class="row">
    <div class="col-lg-6 pt-5 pt-lg-0 order-2 order-lg-1 d-flex flex-column"</pre>
justify-content-center">
     <h1 data-aos="fade-up">"Proud to be Vote"</h1>
     <h2 data-aos="fade-up" data-aos-delay="400">Now is the time! Verify
your name in the electoral roll</h2>
     <div data-aos="fade-up" data-aos-delay="800">
       <a href="#about" class="btn-get-started scrollto">Get Started</a>
     </div>
    </div>
```

```
<div class="col-lg-6 order-1 order-lg-2 hero-img" data-aos="fade-left" data-aos-</pre>
delay="200">
      <img src="{{ url_for('static', filename='img/india.jpg') }}" class="img-fluid"</pre>
animated" alt="">
    </div>
   </div>
  </div>
 </section><!-- End Hero -->
 <main id="main">
  <!-- ===== Clients Section ====== -->
  <section id="clients" class="clients clients">
   <div class="container">
   </div>
  </section><!-- End Clients Section -->
  <!-- ===== About Us Section ====== -->
  <section id="about" class="about">
   <div class="container">
    <div class="section-title" data-aos="fade-up">
      <h2>About Us</h2>
    </div>
    <div class="row content">
      <div class="col-lg-6" data-aos="fade-up" data-aos-delay="150">
      NM2023TMID01810
```

**A4** 

The 2019 Lok Sabha elections in India were significant, with various parties and alliances contesting across the country.

 $\langle ul \rangle$ 

<i class="ri-check-double-line"></i> Individuals or parties contest
elections to represent the people and their interests

<i class="ri-check-double-line"></i> Eligible citizens choose their
preferred candidates or options

<i class="ri-check-double-line"></i> Citizens cast their votes to
express their preferences

 $<\!\!$  /div><div class="col-lg-6 pt-4 pt-lg-0" data-aos="fade-up" data-aos-delay="300">

Quantitative analysis of candidates often involves examining factors such as voting patterns,

demographics, candidate profiles, and campaign strategies. Various research organizations and

media outlets conducted such analyses, looking at parameters like vote share, constituency-wise performance, and regional variations

```
<a href="#" class="btn-learn-more">Learn More</a>
</div>
</div>
</div>
</section><!-- End About Us Section -->
```

```
!-- ===== Dashboard Section ====== -->
  <section id="dashboard" class="dashboard">
   <div class="container">
    <div class="section-title" data-aos="fade-up">
     <h2>Dashboard</h2>
    </div>
   </div>
  </section><!-- End Dashboard Section -->
  <!-- ===== More Dashboard Section ====== -->
  <section id="more-dashboard" class="more-dashboard">
   <div class="container">
    <div class="row">
     <iframe
src="https://us1.ca.analytics.ibm.com/bi/?perspective=dashboard&pathRef=.
my_folders%2Fvisualization1&closeWindowOnLastView=true&ui_app
bar=false&ui_navbar=false&shareMode=embedded&action=view
width="500" height="570" frameborder="0" gesture="media"
allow="encrypted-media" allowfullscreen=""></iframe>
     </div>
    </div>
   </div>
   </section><!-- End More Dashboard Section -->
<!-- ===== Story Section ====== -->
  <section id="portfolio" class="portfolio">
   <div class="container">
```

```
<div class="section-title" data-aos="fade-up">
     <h2>Story</h2>
    </div>
   </div>
  </section><!-- End Story Section -->
  <!-- ===== More Story Section ====== -->
  <section id="more-story" class="more-story">
   <div class="container">
    <div class="row">
     <iframe
src="https://us1.ca.analytics.ibm.com/bi/?perspective=story&pathRef=.my_f
olders%2Ffinalstory3&closeWindowOnLastView=true&ui_appbar=fals
e&ui_navbar=false&shareMode=embedded&action=view&sc
eneId=model0000018b43bd9127_00000000&sceneTime=2200"
     width="500" height="570" frameborder="0" gesture="media"
allow="encrypted-media" allowfullscreen=""></iframe>
     </div>
    </div>
   </div>
  </section><!-- End More Story Section -->
  <!-- ====== Report Section ====== -->
  <section id="team" class="team section-bg">
   <div class="container">
    <div class="section-title" data-aos="fade-up">
     <h2>Report</h2>
    </div>
```

```
</div>
  </section><!-- End Report Section -->
  <!-- ===== More Report Section ====== -->
  <section id="more-report" class="more-report">
   <div class="container">
    <div class="row">
     <iframe
src="https://us1.ca.analytics.ibm.com/bi/?pathRef=.my_folders%2Ffinalreport&a
mp;closeWindowOnLastView=true&ui_appbar=false&ui_navbar=false
&shareMode=embedded&action=edit"
     \width="500" height="570" frameborder="0" gesture="media"
allow="encrypted-media" allowfullscreen=""></iframe>
     </div>
    </div>
   </div>
  </section><!-- End More Report Section -->
<!-- ===== Contact Section ====== -->
  <section id="contact" class="contact">
   <div class="container">
    <div class="section-title" data-aos="fade-up">
     <h2>Contact Us</h2>
    </div>
    <div class="row">
     <div class="col-lg-4 col-md-6" data-aos="fade-up" data-aos-delay="100">
```

```
<i class="ri-phone-line"></i>
         +91 90259 73780
        </div>
       </div>
     </div>
     <div class="col-lg-5 col-md-12" data-aos="fade-up" data-aos-delay="300">
       <form action="forms/contact.php" method="post" role="form"</pre>
class="php-email-form">
        <div class="form-group">
         <input type="text" name="name" class="form-control" id="name"</pre>
placeholder="Your Name" required>
        </div>
<div class="form-group">
         <textarea class="form-control" name="message" rows="5"
placeholder="Message" required></textarea>
        </div>
        <div class="my-3">
         <div class="loading">Loading</div>
         <div class="error-message"></div>
         <div class="sent-message">Your message has been sent. Thank
```

```
you!</div>
        </div>
        <div class="text-center"><button type="submit">Send
Message</br/>/button></div>
       </form>
     </div>
    </div>
   </div>
  </section><!-- End Contact Section -->
</main><!-- End #main -->
       <!-- ===== Footer ===== -->
        <footer id="footer">
         <div class="container">
          <div class="row d-flex align-items-center">
           <div class="col-lg-6 text-lg-left text-center">
             <div class="copyright">
              © Copyright <strong>Elections</strong>. All Rights
       Reserved
             </div>
           </div>
```

```
<div class="col-lg-6">
      <nav class="footer-links text-lg-right text-center pt-2 pt-lg-0">
       <a href="#about" class="scrollto">About</a>
       <a href="#">Privacy Policy</a>
       <a href="#">Home</a>
      </nav>
     </div>
    </div>
  </div>
 </footer><!-- End Footer -->
 <a href="#" class="back-to-top d-flex align-items-center justify-content-
center"><i class="bi bi-arrow-up-short"></i>
 <!-- Vendor JS Files -->
 <script src="{{ url_for('static',</pre>
filename='vendor/purecounter/purecounter_vanilla.js') }}"></script>
<script src="{{ url_for('static', filename='vendor/aos/aos.js') }}">
</script>
<script src="{{ url_for('static',</pre>
filename='vendor/bootstrap/js/bootstrap.bundle.min.js') }}">
</script>
<script src="{{ url_for('static', filename='vendor/glightbox/js/glightbox.min.js')</pre>
}}"></script>
<script src="{{ url_for('static', filename='vendor/isotope-</pre>
layout/isotope.pkgd.min.js') }}">
</script>
<script src="{{ url_for('static', filename='vendor/swiper/swiper-bundle.min.js')</pre>
}}">
</script>
```

### **A.2 SCREENSHOTS**

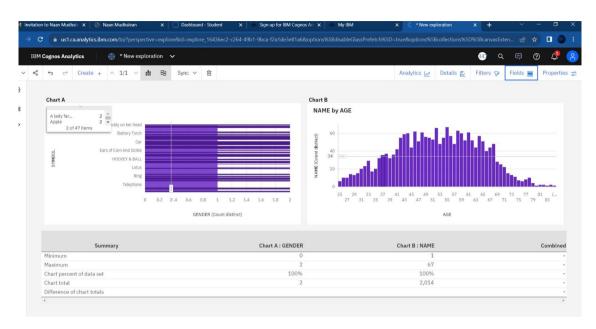


Fig. No. A.2.1 Exploration



Fig. No. A.2.1 Exploration

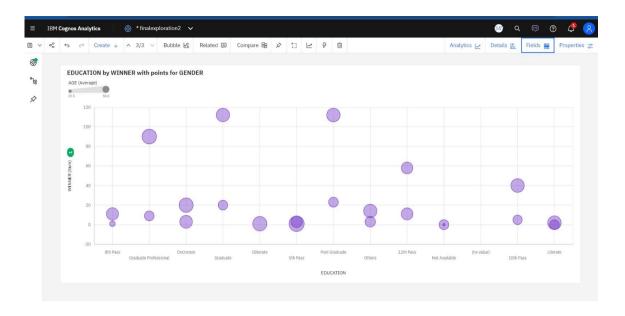


Fig. No. A.2.3 Exploration

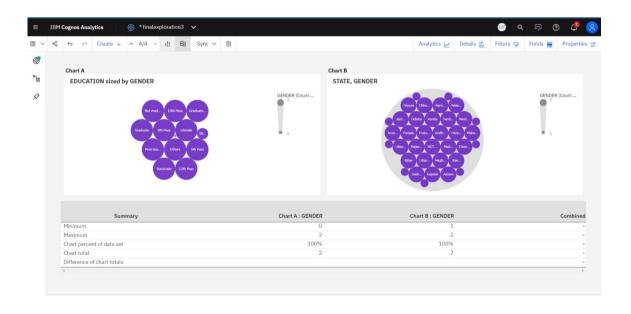


Fig. No. A.2.4 Exploration

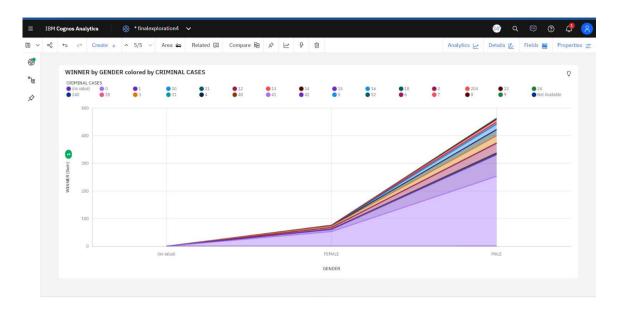


Fig. No. A.2.5 Exploration

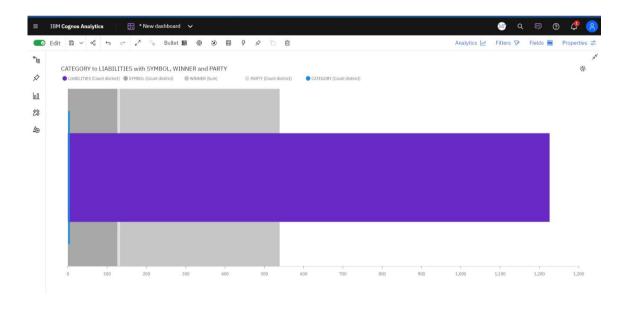


Fig. No. A.3.1 Visualization

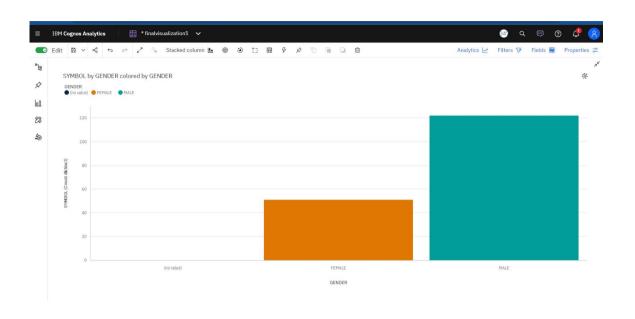


Fig. No. A.3.2 Visualization

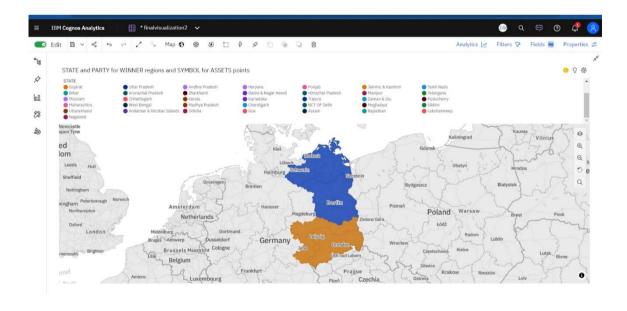


Fig. No. A.3.3 Visualization

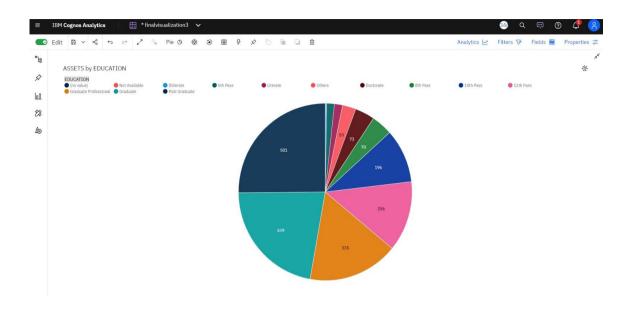


Fig. No. A.3.4 Visualization

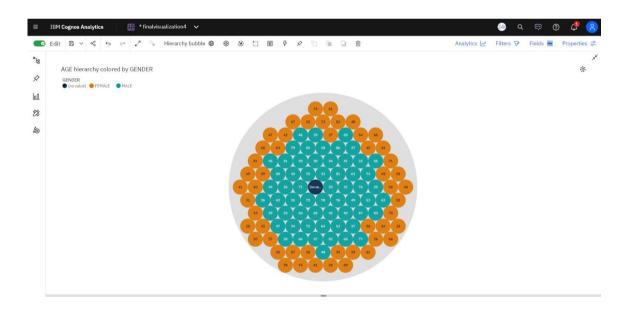


Fig. No. A.3.5 Visualization

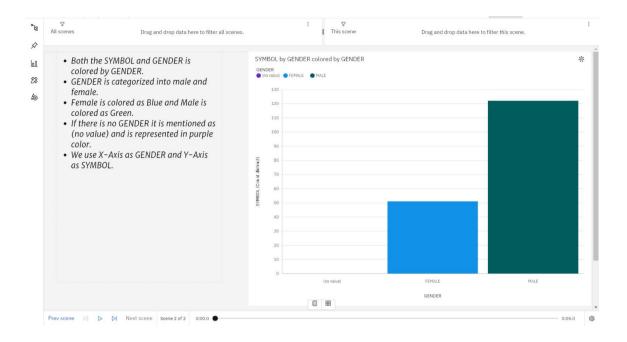


Fig. No. A.4.1 Story

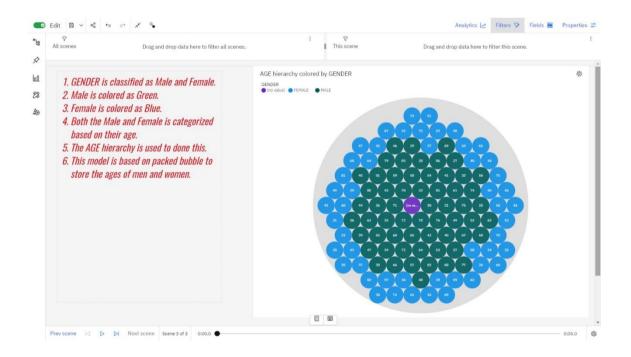


Fig. No. A.4.2 Story

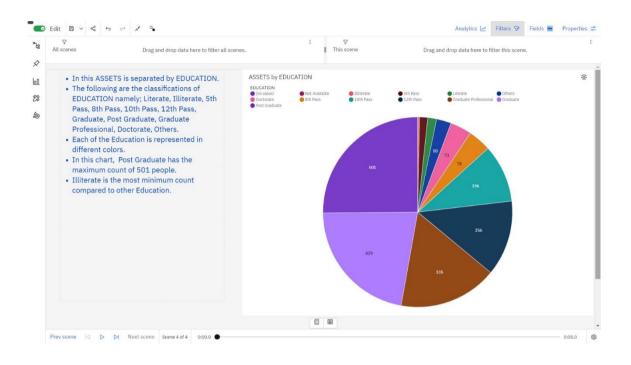
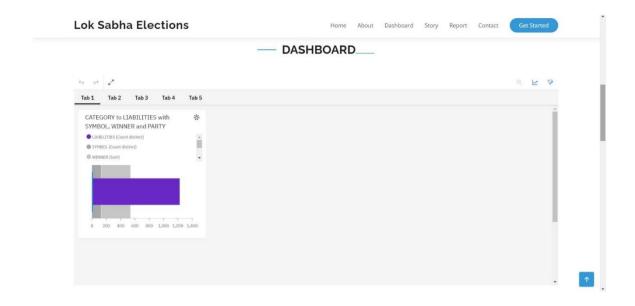
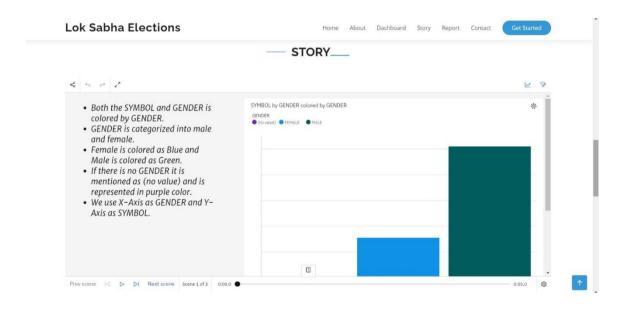
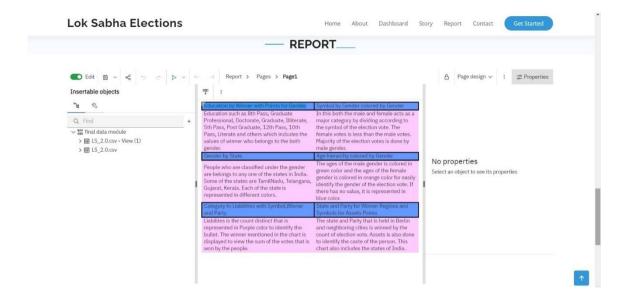


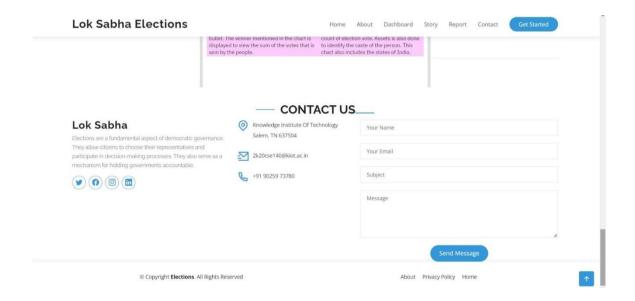
Fig. No. A.4.3 Story











# GITHUB & PROJECT VIDEO DEMO LINK

# **GITHUB LINK:**

 $\frac{https://github.com/Sivasakthi-2003/Naan-Mudhalvan-Data-Analytics-NM2023TMID01810}{NM2023TMID01810}$ 

# PROJECT VIDEO DEMO LINK:

https://drive.google.com/drive/folders/11n\_ypbcXWVNaBSShBIIv7uzG Oyi5Hg8z?usp=sharing



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